

# Human Complement Factor D ELISA Kit ab243686

Recombinant SimpleStep ELISA<sup>®</sup>

[1 References](#) [9 Images](#)

## Overview

**Product name** Human Complement Factor D ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
serum	8			2.4%

Inter-assay

Sample	n	Mean	SD	CV%
serum	3			4.3%

**Sample type**

Cell culture supernatant, Urine, Serum, Hep Plasma, EDTA Plasma, Cit plasma

**Assay type**

Sandwich (quantitative)

**Sensitivity**

2.6 pg/ml

**Range**

15.63 pg/ml - 1000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	96	87% - 102%
Urine	88	83% - 90%
Serum	98	92% - 105%
Hep Plasma	95	82% - 102%
EDTA Plasma	93	84% - 102%
Cit plasma	94	90% - 100%

<b>Assay time</b>	1h 30m
<b>Assay duration</b>	One step assay
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Product overview</b>	Human Complement Factor D ELISA Kit (ab243686) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Complement Factor D protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Complement Factor D with 2.6 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

<b>Platform</b>	Pre-coated microplate (12 x 8 well strips)
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## Properties

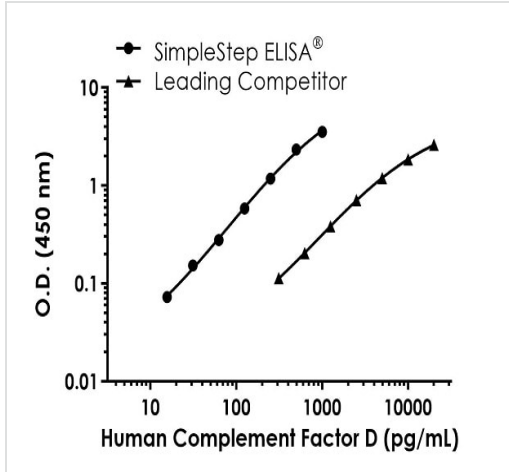
<b>Storage instructions</b>	Store at +4°C. Please refer to protocols.
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Components	1 x 96 tests
10X Human Complement Factor D Capture Antibody	1 x 600µl
10X Human Complement Factor D Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml
Human Complement Factor D Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml

Components	1 x 96 tests
TMB Development Solution	1 x 12ml

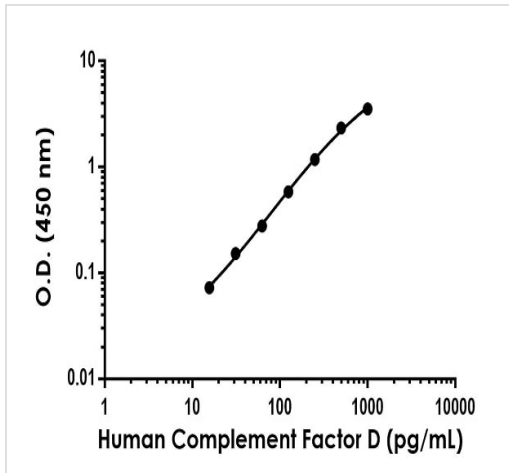
<b>Function</b>	Factor D cleaves factor B when the latter is complexed with factor C3b, activating the C3bbb complex, which then becomes the C3 convertase of the alternate pathway. Its function is homologous to that of C1s in the classical pathway.
<b>Involvement in disease</b>	Defects in CFD are the cause of complement factor D deficiency (CFD deficiency) [MIM:134350]. CFD deficiency predisposes to invasive meningococcal disease.
<b>Sequence similarities</b>	Belongs to the peptidase S1 family. Contains 1 peptidase S1 domain.
<b>Cellular localization</b>	Secreted.

**Images**



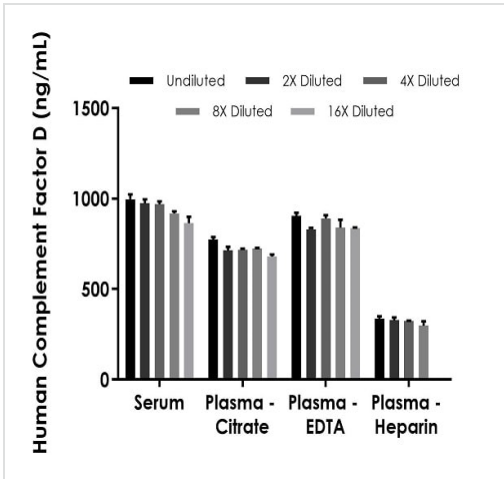
Standard Curve comparison between human Complement Factor D SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.

Human Complement Factor D Standard Curve Comparison.



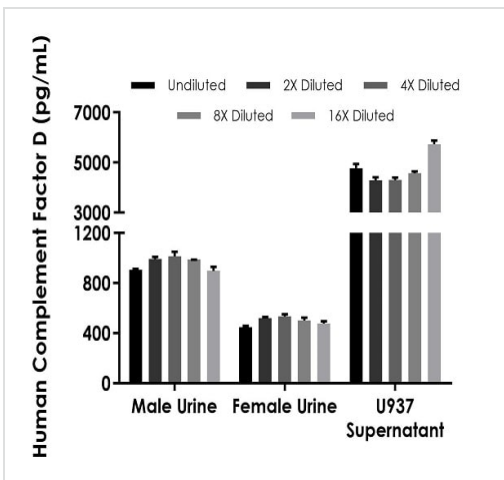
Example of human Complement Factor D standard curve in Sample Diluent NS.

Sandwich ELISA - Human Complement Factor D ELISA Kit (ab243686)



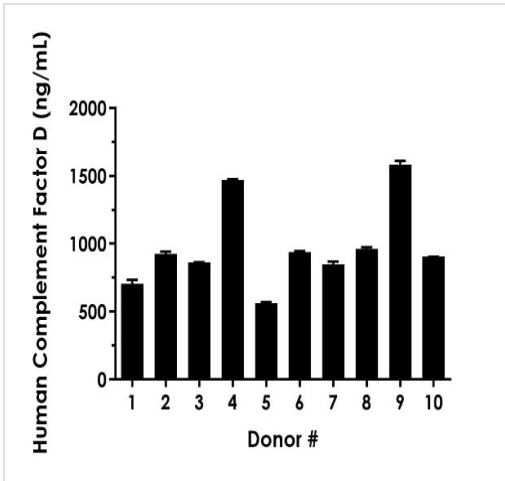
Interpolated concentrations of native Complement Factor D in human serum and plasma samples.

The concentrations of Complement Factor D were measured in duplicates, interpolated from the Complement Factor D standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1:1,000, plasma (citrate) 1:1,000, plasma (EDTA) 1:1,000 and plasma (heparin) 1:1,000. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Complement Factor D concentration was determined to be 944.1 ng/mL in serum, 721.8 ng/mL in plasma (citrate), 860.5 ng/mL in plasma (EDTA), and 321.7 ng/mL in plasma (heparin).



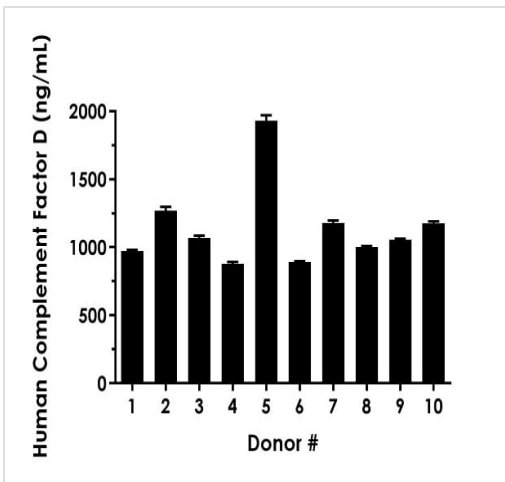
Interpolated concentrations of native Complement Factor D in human urine and cell culture supernatant samples.

The concentrations of Complement Factor D were measured in duplicates, interpolated from the Complement Factor D standard curves and corrected for sample dilution. Undiluted samples are as follows: male urine 100%, female urine 50%, and U937 supernatant 12.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Complement Factor D concentration was determined to be 958.8 pg/mL in male urine, 494.7 pg/mL in female urine and 4,734.2 pg/mL in U937 supernatant.



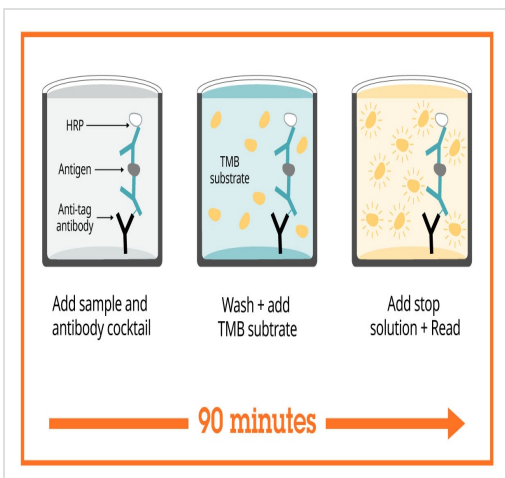
Serum from ten individual healthy human male donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Complement Factor D concentration was determined to be 975.9 ng/mL with a range of 556.8 – 1,603.5 ng/mL.



Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Complement Factor D concentration was determined to be 1,142.5 ng/mL with a range of 867.1 – 1,958.8 ng/mL.



Sandwich ELISA - Human Complement Factor D ELISA Kit (ab243686)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Powered by  
recombinant antibodies



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Human Complement Factor D  
ELISA Kit (ab243686)

To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with  
SimpleStep ELISA**



**Easy to use**  
Single-wash 90-minute protocol



**Flexible**  
Matched antibody pairs available



**Precision antibodies**  
High sensitivity, specificity and reproducibility



**Scalable**  
Now in 10-pack and 384-well formats

Sandwich ELISA - Human Complement Factor D  
ELISA Kit (ab243686)

To learn more about the advantages of SimpleStep ELISA<sup>®</sup> kits see [here](#).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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